



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/670,059	09/25/2003	Syohji Tomita	1248-0669P	2413
2292	7590	09/08/2005	EXAMINER	
BIRCH STEWART KOLASCH & BIRCH PO BOX 747 FALLS CHURCH, VA 22040-0747			LEE, SUSAN SHUK YIN	
			ART UNIT	PAPER NUMBER
			2852	

DATE MAILED: 09/08/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/670,059

Applicant(s)

TOMITA ET AL.

Examiner

Susan S. Lee

Art Unit

2852

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 23 June 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 5,6,8-10,20-27,32,34-37 and 39-51 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 9,10 and 20-27 is/are allowed.
- 6) ☒ Claim(s) 36,37,39,41-45,48,49 and 51 is/are rejected.
- 7) ☒ Claim(s) 5,6,8,32,34,35,40,46,47 and 50 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Upon reconsideration of the claims, the previous indicated allowability of claims 36, 37, 39, 41-45, 48, 49, and 51 is hereby withdrawn in view of the following rejections.

Claim Objections

Claims 5, 6, 8, 32, and 44-51 are objected to because of the following informalities:

As to claim 5, line 3, "the direct current voltage" lacks antecedent basis.

As to claim 5, lines 3-4, "the superimposing voltage" lacks antecedent basis.

As to claim 5, line 4, "an break-down voltage" is incorrect. It should be - - a break-down voltage - - .

As to claim 6, line 6, "the direct current voltage" lacks antecedent basis.

As to claim 6, lines 6-7, "the superimposing voltage" lacks antecedent basis.

As to claim 8, line 3, "the alternating current voltage" lacks antecedent basis.

As to claim 8, lines 3-4, "the superimposing voltage" lacks antecedent basis.

As to claim 32, lines 4-5, "the electrification roller" lacks antecedent basis.

As to claim 44, line 3, "the developer supplying means" lacks antecedent basis.

As to claim 45, line 11, "the developer supplying means" lacks antecedent basis.

Appropriate correction is required.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

Claims 39, 37, 41, 42, 44, 45, 49, and 51 are rejected under 35 U.S.C. 102(b) as being anticipated by Ito et al. (5,970,285).

Ito et al. discloses a photosensitive member 1 or image holding body; a magnetic brush 2 or electrification member; developing apparatus 3; and transfer roller 4 or transcription means for transfer a toner image onto a transfer material P. The magnetic brush 2, as in Fig. 4, shows its magnetic sleeve 21 not in contact with the image holding body 1. Where the surface of the magnetic sleeve 21 of the brush 2 faces the image holding body 1 have the sleeve 21 rotating at a direction that is opposite of the direction of rotation of image holding body 1. This is shown in figure 1. Note column 4, line 54 – column 5, line 58; and Figs 1 and 4. The toner particles remaining after the transcription of the toner image onto transfer material P are uniformly charged to a positive polarity (opposite polarity of the charge polarity of the electrification member 2, by fur brush 6 that reads on the instant invention's "foreign material agitating means". The residual toner particles are temporarily arrested by the fur brush 6, so that the residual toner particles having negative triboelectrical charge before being subject to the charging by the fur brush 6 can be easily charged to the polarity opposite to the charge polarity of the electrification member 2. Then the residual toner particles are recovered from the image holding body 1 onto the magnetic brush 2 or electrification member 2. The residual toner is then mixed with the magnetic particles of electrification member 2 and charged by the electrification member 2 a negative polarity and then, uniformly discharged onto the image holding body 1. The surface of the image holding body 1 is uniformly charged by the electrification member 2 concurrently as the residual toner is

Art Unit: 2852

transferred from the image holding body 1 onto the electrification member 2 and discharged back onto the image holding body 1. Note column 7, lines 6-42. The residual toner that is on the image holding body 1 is then transferred (recovered) onto a developing sleeve of the developing apparatus 3. Note column 6, lines 32-39. Since applicant has not defined what "developer supplying means" (claims 43, 44, and 45) is, it is assumed that it is the same element as the electrification member since it also supplies developer.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 36, 43, and 48 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ito et al. (5,970,285) in view of Inoue et al. (5,973,245).

Ito et al., as discussed above, differs from the instant invention by not disclosing what kind of power source was S1 and the peripheral velocity of the image holding body and the peripheral velocity of the developer supply means.

Inoue et al. discloses a power source S1 is applied to magnetic brush 3 or electrification member 3. S1 is a compound voltage composed of DC voltage and alternating voltage. Note column 7, lines 9-41. The peripheral velocity of the electrification member 3 is 150 mm/sec and the peripheral velocity of the image holding member 1 is 100 mm/sec. Note column 6, lines 50-61.

Art Unit: 2852

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the apparatus of Ito et al. with that of Inoue et al. so that a desirable charged can be obtained for the image holding member 1 and the residual toner can be more efficiently absorbed by the electrification member. Note column 7 of Inoue et al., lines 40-42; and column 7, lines 2-8.

Allowable Subject Matter

Claims 34, 35, 40, 46, 47, and 50 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Claims 5, 6, 8-10, 20-27, and 32 are allowed over the prior art of record.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Susan S. Lee whose telephone number is 571-272-2137. The examiner can normally be reached on Mon. - Fri., 10:30-8:00, Second Monday Off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Art Grimley can be reached on 571-272-2136 or 571-272-2800 (Ext. 52). The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 2852

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Susan S. Lee
Primary Examiner
Art Unit 2852

sl